REMARKS

Claims 1-3, 6-29, and 32-74 are pending in the Application. By this amendment, claims 1, 8, 9, 11, 27, 34, 35, 37, 53 and 61 have been amended and claims 6, 7, 32, 33, 54 and 66 have been canceled without prejudice. Reconsideration of the claim rejections in view of the above amendments and the following remarks is respectfully requested.

Specification Objections

The specification was objected to for the reasons stated in the Office Action. Applications have amended the specification as requested. Therefore, withdrawal of the objection is requested.

Claim Rejections- 35 U.S.C. § 103(a)

(A) The following claim rejections were asserted in the Office Action:

(i) Claims 1-3, 6-8, 11-15, 27-29, 32-34, 37-41, 53-67 and 70-74 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,336,123 to Inoue et al. in view of U.S. Patent No. 6,073,135 to Broder et al. and Cormen, et al., "Introduction to Algorithms", pp. 477-493;

(ii) Claims 9-10, 35-36 and 68-69 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue in view of Broder and Cormen as applied to claim 7, and further in view of U.S. Patent No. 6,230,168 to Unger et al;

(iii) Claims 16-20, 22, 42-46 and 48 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue in view of Broder and Unger; and

(iv) Claims 21, 23-26, 47 and 49-52 stand rejected under 35 U.S.C. 103(a) as being

unpatentable over Inoue in view of Broder and Unger as applied to claims 16 and 20 and further in view of Cormen.

(B) Unger Is Disqualified As Prior Art In the Obviousness Rejections

At the outset, it is respectfully submitted that the above obviousness rejections (ii), (iii), and (iv) are legally deficient *on their face* because, as discussed in Applicants' previous response, U.S. Patent No. 6,230,168 to Unger is disqualified as prior art against the present application.

In particular, under amended provisions of 35 U.S.C 103(c), commonly assigned applications that are available as prior art only under 35 U.S.C. 102(e), (f) or (g) are no longer applicable as prior art to the claimed invention in an obviousness rejection. In particular, 35 U.S.C. 103(c) was amended to recite:

> Subject matter developed by another person, which qualifies only as prior art under one or more subsection (e), (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

(Emphasis added). See also 1233 OG 55-56 (April 11, 2000), which described guidelines to implement amended 103(c), and M.P.E.P. 706.02(l)(1).

Here, Unger was issued (May 8, 2001) after the filing date of the present application (April 1, 1999), and therefore Unger is available as possible prior art to the present application only under 35 U.S.C. 102(e). Furthermore, both Unger and the present application are *commonly owned* by International Business Machines Corporation. Furthermore, the present application was refiled as a Continued Prosecution Application (CPA) on January 7, 203 to obtain the benefits of amended 103(c).

Therefore, amended 103(c) is applicable to disqualify Unger as prior art for the above obviousness rejections. Therefore, the 103(a) rejections based on Unger must be withdrawn.

(C) The Combination of Inoue, Broder and Cormen is Legally Deficient to Establish *a Prima Facie* Case of Obviousness against Claims 1, 27, 53 and 61.

To establish a *prima facie* case of obviousness based on a combination of references, various criteria must be met. For instance, the combination of references *must* teach or suggest all the claim limitations. Further, there must be some suggestion or motivation in the references or in the knowledge generally available to one or ordinary skill in the art to combine their teachings. Indeed, the burden of presenting a *prima facie* case of obviousness is only satisfied by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. In re Fine, 837 F.2d 1071, 1074 (Fed. Cir. 1988). A prima facie case of obviousness is established when the teachings of the prior art itself would appear to have suggested the claimed subject matter to one of ordinary skill in the art. In re Bell, 991 F.2d 781, 782 (Fed. Cir. 1993). The teaching or suggestion to make the claimed combination must both be found in the prior art and not based on applicant's disclosure. The suggestion to combine the references should come from the prior art, and the Examiner cannot use hindsight gleaned from the invention itself to pick and choose among related disclosures in the prior art in an attempt to arrive at the claimed invention. In re Fine, 837 F.2d at 1075.

For at least the reasons set forth below, it is respectfully submitted that the combination of Inoue, Broder and Cormen is legally deficient to establish *a prima facie* case of obviousness

against independent Claims 1, 27, 53 and 61.

To begin, Claims 1 and 27 are generally directed to methods for publishing objects. A graph is used to represent relationships between the plurality of objects. The graph is sorted in topological order to determine an order in which to construct one or more objects based on one or more relationships between the objects or updates to one or more objects.. Then, one or more objects are constructed based on the determined order and the constructed objects are published.

Advantageously, the invention of claims 1 and 27 provide methods for publishing documents, which include an accurate and efficient method determining the order in which objects should be updated before they are published. The objects are updated in an order consistent with the topological sorting to thereby maintain consistency among published objects.

Here, it is respectfully submitted that independent claims 1 and 27 are patentable and non-obvious over the combination of Inoue, Broder and Cormen because at the very minimum, such combination fails to teach or suggest a method for *publishing objects* comprising *sorting a graph to determine an order in which to construct one or more objects based on one or more relationships between the objects or updates to one or more objects, constructing one or more objects based on the determined order and then publishing the constructed objects*, as essentially claimed in Claims 1 and 27.

Indeed, Inoue is directed to a system and method for building a hierarchy tree structure for maintaining connection-relationship among nodes (links) of hypertext documents. Examiner acknowledges that Inoue does not disclose "sorting the at least one graph to determine the order in which to construct objects ..." but Examiner contends (on Page 5 of the Office Action) that

Inoue teaches "the content of each web page is managed in dependence of the hierarchy structure ..." Applicants respectfully disagree with such interpretation.

Indeed, Inoue does not teach managing the content of each web page using the hierarchy structure. In stark contrast, Inoue explicitly teaches that "**the preparation or revision of the arrangement of the hyper-text documents in the hierarchy structure is performed independent of the preparation or revision of the contents of the hyper-text documents.**" (see, Col. 4, lines 36-41). Inoue teaches that "**the preparation of the contents of each hyper-text document can be performed independent of the determination of the hierarchy structure of the hyper-text documents**" (Col. 11, lines 37-45) In other words, although Inoue discloses a "hierarchy structure" for maintaining connection-relationships between nodes, such structure merely establishes a *referential relationship* among hypertext documents, which provides high degree of freedom for the expression/arrangement of the hypertext documents themselves (Col. 4. lines 50-52; Col. 10, lines 47-50).

Thus, there is no teaching or suggestion in Inoue of a method of *publishing documents by sorting a graph to thereby determine an order in which to construct objects based on relationships between objects or updates objects*, as essentially claimed in claims 1 and 27. Accordingly, it is respectfully submitted that Examiner's reliance on Inoue as teaching "the content of each web page is managed in dependence of the hierarchy structure ..." is misplaced, and is in direct contravention to the express teachings of Inoue.

Furthermore, Broder does not cure the deficiencies of Inoue. Indeed, Broder is merely directed to a system and method for linking a plurality of Web pages using a graph that maintains linkage information. There is simply no teaching or suggestion in Broder of a method of

publishing documents by sorting a graph to thereby determine an order in which to construct objects based on relationships between objects or updates objects, as essentially claimed in claims 1 and 27.

Furthermore, Applicants respectfully disagree with Examiner's conclusion of obviousness (on Pages 5 and 6 of the Office Action) on the ground that "it would have been obvious ... to have combined Broder and Inoue to traversing the graph to update web pages ..." As noted above, neither Broder nor Inoue are even remotely related to updating web pages, much less using *a graph to determine an order in which to construct objects before publishing the constructed objects*. In fact, Inoue expressly teaches away from the claimed invention because, as noted above, Inoue teaches a hierarchical structure (or graph) which is independent of the content of the hypertext documents. As such, Inoue is not concerned with updating objects in a determined order to thereby maintain consistency in the published documents.

Moreover, although Cormen arguably discloses a "topological graph", Cormen does not disclose that such method is used for a method for publishing objects. In any event, it is respectfully submitted that for at least the above reasons, there is simply no motivation or suggestion to combine the teachings of Cormen with Inoue and Broder to derive the inventions of claims 1 and 27. In fact, as discussed above, the combination of such references fails to disclose or suggest a method for *publishing objects* comprising *sorting a graph to determine an order in which to construct one or more objects based on one or more relationships between the objects or updates to one or more objects, constructing one or more objects based on the determined order and then publishing the constructed objects*, as essentially claimed in Claims 1 and 27, but rather teaches away from the claimed invention.

Therefore, claims 1 and 27 are believed to be patentably and non-obvious over the combination of Inoue, Broder and Cormen.

Furthermore, independent Claim 61 is believed to be patentable and non-obvious over such combination at least for similar reasons given above for claims 1 and 27.

Moreover, all pending claims that depend from claims 1, 27 and 61 are believed to be patentable over the cited references at least by virtue of their dependence from respective base claims 1, 27 and 61.

Next, Claim 53 is directed to a method for publishing documents. A graph is constructed which includes nodes representing objects and edges for connecting nodes having relationships. Some of the edges are derived from a consistency constraint. A strongly connected component is found using the graph and a set of objects belonging to a same strongly connected component group are published. In other words, the invention of claim 53 provides a method that can be implemented using a graph to determine when objects can be published together, for instance.

It is respectfully submitted that the combination of Inoue, Broder and Cormen is legally deficient to establish a *prima facie* case of obviousness against claim 53. In particular, as noted above, on a *fundamental level*, it is readily apparent to those of ordinary skill in the art that neither Inoue nor Broder are related to methods for publishing objects. In fact, both Inoue and Broder are essentially concerned with maintaining linking information between hypertext documents on the Web. The data structures disclosed by Inoue and Broder do not comprise *a graph that enables publication of sets of objects belonging to the same strongly connected component group, wherein strongly connected components are determined using the graph*, as essentially claimed in claim 53.

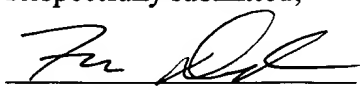
Further, it is respectfully submitted that the basis for obviousness (as stated on page 12 of the Office Action) that "it would have been obvious ... to have modified Inoue and Broder into Cormen to find strongly connected components since finding strongly connected components are necessary in order to update them to consistent state together to publish" is legally insufficient to justify the combination, as against claim 53. For instance, as noted above, the claimed graph (claim 53) is used for finding strongly connected components for purposes of publication, not necessarily updating the objects. Furthermore, as discussed above, Inoue expressly discloses that the content of the hypertext documents can be prepared independently of the hierarchical structure. As such, Inoue is not concerned with consistency of content between pages, much less when such pages are published in relation to each other. Further, Border is only concerned with maintaining connectivity information for web pages to provide, e.g., Web navigation, but does not disclose or suggest methods for determining how or when to publish objects. Again, notwithstanding that Cormen discloses "finding strongly connected components" Cormen does not disclose that the method can be implemented for publishing objects.

In any event, it is respectfully submitted that for at least the above reasons, there is simply no motivation or suggestion to combine the teachings of Cormen with Inoue and Broder to derive the invention of claim 53. Indeed, as discussed above, the combination of such references fails to disclose or suggest a method for *publishing objects using a graph that is used for finding strongly connected components to thereby enable publication of sets of objects belonging to the same strongly connected component group,* as essentially claimed in claim 53.

Therefore, claim 53 and all pending claims that depend from claim 53, are believed to be patentable and non-obvious over at least the combination of Cormen with Inoue and Broder

In view of the foregoing amendments and remarks, it is respectfully submitted that all the claims now pending in the application are in condition for allowance. Early and favorable reconsideration of the case is respectfully requested.

Respectfully submitted,



Frank V. DeRosa
Registration No. 43,584

Mailing Address:
F. Chau & Associates, LLP
1900 Hempstead Turnpike, Suite 501
East Meadow, NY 11554
TEL (516) 357-0091
FAX (516) 357-0092